

November 08, 2018



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 12068
(FIFTHTEENTH REVISION)

EXPIRATION DATE: 2022-10-31

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: S7 Sea Launch Limited
Long Beach, CA

2. PURPOSE AND LIMITATION:

a. This special permit authorizes the transportation in commerce of certain hazardous materials (listed in paragraph 6 of this special permit) contained in the Sea Launch Integrated Launch Vehicle with and without payload. The launch vehicle, a three-stage, liquid-fueled rocket of Russian and Ukrainian design, will be transported via ocean onboard the Assembly and Command Ship (ACS) or an exclusive-use "roll-on roll-off (Ro-Ro)" cargo vessel to the Home Port in Long Beach, California, and subsequently after assembly, testing, and integration by Launch Platform to the launch operations site near the equator. This special permit does not cover transportation of the payload to the home port or transportation of hazardous materials that are not contained in the integrated launch vehicle or one of the stages. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.

c. No party status will be granted to this special permit.

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3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR Part 172 Subparts C, D, E, and F, § 173.62, and Part 173 Subparts E, F, and G only when hazardous materials are in transportation as part of one of the stages or the integrated launch vehicle.
5. BASIS: This special permit is based on the application of S7 Sea Launch Limited dated October 10, 2018 submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/Division	Identification Number	Packing Group
Hazardous Materials in Launch Vehicle			
Air, compressed	2.2	UN1002	N/A
Cartridges, power device *	1.4C	UN0276	N/A
Cartridges, power device *	1.4S	UN0323	N/A
Detonators, non-electric <i>for blasting</i>	1.4B	UN0267	N/A
Dimethylhydrazine, unsymmetrical	6.1	UN1163	I, Hazard Zone B
Dinitrogen tetroxide	2.3	UN1067	Hazard Zone A
Flammable liquids, n.o.s.	3	UN1993	III
Fuzes, detonating, <i>with protective features</i>	1.4D	UN0410	N/A
Fuzes, detonating	1.4S	UN0367	N/A
Igniters *	1.3G	UN0315	N/A

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Hazardous Materials Description			
Proper Shipping Name	Hazard Class/Division	Identification Number	Packing Group
Igniters *	1.4S	UN0454	N/A
Kerosene	3	UN1223	III
Lithium metal batteries	9	UN3090	N/A
Methylhydrazine	6.1	UN1244	I, Hazard Zone A
Pyrophoric liquids, organic, n.o.s.	4.2	UN2845	I
Release devices, explosive *	1.4S	UN0173	N/A
Rocket motors	1.3C	UN0186	N/A
Hazardous Materials Permitted in Payload			
Ammonia, anhydrous	2.3	UN1005	Hazard Zone D
Articles, explosive, n.o.s.	1.4S	UN0349	N/A
Dinitrogen tetroxide	2.3	UN1067	Hazard Zone A
Helium, compressed	2.2	UN1046	N/A
Hydrogen, compressed	2.1	UN1049	N/A
Hydrazine, anhydrous, or Hydrazine aqueous solutions with more than 64 percent of hydrazine, by mass	8	UN2029	I
Methylhydrazine	6.1	UN1244	I, Hazard Zone A

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Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Potassium hydroxide solution	8	UN1814	II, III
Toluene	3	UN1294	II
Xenon, compressed	2.2	UN2036	N/A

* Preliminary classifications recommended in application.

7. SAFETY CONTROL MEASURES:

a. Quantities of hazardous materials transported as part of the launch vehicle will not exceed those specified in the special permit application.

b. Safety provisions will be in accordance with the Sea Launch System Safety Plan dated 1 February 1997, or subsequent revisions. Revisions to this document or any associated manuals addressing hazardous materials requirements must be provided to the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD) within 30 days of their issuance.

c. Block DM third stage and payload propellants will not be added to the launch vehicle prior to integration and testing at the Home Port.

8. SPECIAL PROVISIONS:

a. Transportation is authorized by Assembly and Command Ship (ACS), exclusive-use "roll-on roll-off (Ro-Ro)" cargo vessel, and Launch Platform only.

b. The permit holder must provide descriptions of any design changes impacting how hazardous materials in the integrated launch vehicle, except for the payload, are

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stored, pressurized, or used and an assessment of how these changes affect risk to OHMSAPD not later than 60 days prior to transportation covered by this special permit.

c. Payload tanks containing hazardous materials must meet the requirements of MIL-STD-1522A, "Standard General Requirements for Safe Design and Operation of Pressurized Missile and Space Systems" or demonstrate an equivalent level of safety if designed to other standards. A design burst pressure to maximum expected operating pressure safety factor of 2.0 must be maintained during transportation prior to launch activities unless adequate evaluation data is provided that establishes a design with a lower safety factor will perform safely in the Sea Launch transportation environment. In no case, however, will this safety factor be less than 1.5. The evaluation data must be provided to OHMSAPD no later than 30 days prior to integration of the payload into the launch vehicle at the Home Port.

d. Descriptions, drawings, and specifications for tanks for hypergolic liquids and related pressure controlling systems contained in the payload will be provided to OHMSAPD for all payload designs no later than 30 days prior to integration of the payload into the launch vehicle at the Home Port.

9. MODES OF TRANSPORTATION AUTHORIZED: Cargo vessel.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel used to transport packages covered by this special permit and maintained at the Home Port.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
 - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.

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- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)– "The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

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Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Andrew Eckenrode/SG